

WHAT IS CLAIMED IS:

1. A system for automatically positioning an antenna comprising:

a motor arranged to be coupled to the antenna;
and,

a controller coupled to the motor, wherein the controller is arranged to control the motor in response to selection of a channel so as to automatically drive the antenna to a position at which the antenna is aimed at a source of a signal associated with the selected channel, and wherein the controller drives the motor to the position based upon a location of the signal source and a location of the antenna.

2. The system of claim 1 wherein the controller stores the location of the signal source in memory.

3. The system of claim 2 wherein the location of the antenna is supplied by a global position sensor.

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4. The system of claim 1 wherein the controller stores the location of the antenna in memory.

5. The system of claim 1 wherein the location of the antenna is supplied by a global position sensor.

6. The system of claim 1 wherein the controller is arranged to drive the motor in response to a compass reading derived from a compass.

7. The system of claim 1 wherein the controller stores a location of a known offending source and reduces reception of a signal from the known offending source based upon the location of the known offending source.

8. The system of claim 7 wherein the antenna has a reception path between the antenna and the signal source, and wherein the controller blocks reception of the signal from the known offending source only if the known offending source is effectively in the reception path between the antenna and the signal source.

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9. The system of claim 1 further comprising a variable gain amplifier electrically coupled between the antenna and a receiver tuned to the channel selected by the user, wherein the controller controls the gain of the variable gain amplifier according to the location of the signal source.

10. The system of claim 1 wherein the controller is arranged to cancel ghosts depending upon the position of the antenna.

11. The system of claim 1 wherein the antenna comprises first and second antennas, and wherein the controller is arranged to switch between the first and second antennas depending upon the channel selected by the user.

12. The system of claim 1 wherein the location of the signal source and the location of the antenna are global locations.

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13. A controller for controlling the automatic positioning of an antenna, wherein the controller is arranged to drive the antenna to a position dependent upon (i) a channel selected by a user, (ii) a location of the antenna, and (iii) a location of a source of a signal associated with the selected channel.

14. The controller of claim 13 wherein the location of the source is stored in a memory of the controller.

15. The controller of claim 13 wherein the location of the antenna is provided by a global position sensor.

16. The controller of claim 13 further comprising a compass, wherein the controller performs a calibration based upon a reading from the compass.

17. The controller of claim 13 wherein the controller performs a calibration based upon a position of

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the antenna providing the best reception from a signal source.

18. The controller of claim 17 wherein the signal source is the source of the signal associated with the selected channel.

19. The controller of claim 13 wherein the controller reduces reception of a signal from a known offending source.

20. The controller of claim 19 wherein a location of the known offending source is stored in memory of the controller.

21. The controller of claim 13 wherein the controller stores a location of a signal reflector, and wherein the controller reduces a ghost when the antenna has a position with respect to the stored location of the signal reflector to receive the ghost.

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22. The controller of claim 13 wherein the controller reduces a ghost dependent upon known geographical topography.

23. The controller of claim 22 wherein a location of the known geographical topography is stored in a memory of the controller.

24. The controller of claim 13 wherein the source is a signal source, wherein the antenna has a reception path between the antenna and the signal source, wherein the controller stores a location of an offending source in the reception path, and wherein the controller reduces reception of a signal from the offending source only when the antenna is effectively aimed at the signal source.

25. The controller of claim 13 further comprising a variable gain amplifier electrically coupled between the antenna and a receiver tuned to the channel selected by the user, wherein the controller controls the gain of the variable gain amplifier according to the location of the source.

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26. The controller of claim 13 wherein the antenna comprises first and second antennas, and wherein the controller is arranged to switch between the first and second antennas depending upon the channel selected by the user.

27. The controller of claim 13 wherein the location of the signal source and the location of the antenna are global locations.

28. A method of positioning an antenna comprising:

automatically computing a path through which an antenna is to be moved from a first position to a second position, wherein the automatic computation is based upon a location of a remote source corresponding to a channel to which a tuner is tuned by a user and upon a location of the tuner, wherein the first position of the antenna is a current position of the antenna, and wherein the second position of the antenna is a position at which the antenna is aimed at the remote source; and,

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moving the antenna through the automatically computed path.

29. The method of claim 28 wherein the location of the remote source is stored in memory at the tuner location, wherein the stored remote source location is retrieved from the memory, and wherein the retrieved remote source location is used in the automatic computation.

30. The method of claim 28 wherein the location of the tuner is read from a global position sensor.

31. The method of claim 28 further comprising performing a calibration based upon a reading from a compass associated with the antenna.

32. The method of claim 28 further comprising performing a calibration based upon a position of the antenna providing the best reception from a reference source.

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33. The method of claim 28 further comprising reducing reception of a signal from a known offending source based upon reading a location of the known offending source from memory.

34. The method of claim 28 further comprising reducing a ghost based upon reading a location of geographical topography from memory.

35. The method of claim 28 further comprising varying gain of a variable gain amplifier according to the location of the remote source.

36. The method of claim 28 wherein the antenna comprises first and second antennas, and wherein the method further comprises switching between the first and second antennas depending upon the channel selected by the user.

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B1

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